Completed Pollution Prevention Project Case Study

United States Department of Energy
Office of Environmental Management
Fact Sheet

Environmentally-Friendly Floor Care

Los Alamos National Laboratory

Original Problem

Since the LANL wastewater treatment plant does not receive much water to treat on some days, such as weekends, certain chemicals that would be acceptable at a municipal treatment plant would harm the microorganisms that treat the water at the LANL plant. For example, dirty water from mopping the floor at LANL sites could not be sent to the sanitary wastewater treatment plant because the cleaning solution would have been toxic to the bacteria. As a result, about fifty 55-gallon drums of hazardous waste water were produced every year from routine cleaning.

The Project Solution

Employees from JCNNM, Kleen-Tech, and LANL experimented with various dilutions of the cleaning agent, and they found a lower concentration that was just as effective at cleaning the floor but did not harm the microorganisms at the water treatment plant.

Value of Improvement

Dirty water from mopping the floors can now be treated at the LANL wastewater treatment plant with no problems, saving LANL approximately $60,000 each year since the water does not have to be sent away as hazardous waste. Over 2500 gallons of dirty water from cleaning the floors no longer has to be treated as hazardous waste.

Lifecycle Waste Reduction	
Lifecycle Waste Reduction	>2500gal /year
Commencement Date	2001
Project Useful Life (Years)	Indefinite

DOE Monetary Benefits	
Total Project Cost	NA
Lifecycle Savings	~$60,000 / year
Return on Investment	NA

Benefits At-A-Glance

- Approximately fifty 55-gallon drums of hazardous waste water are no longer produced every year.
- LANL saves about $60,000 per year on reduced hazardous waste disposal costs.
- The LANL wastewater treatment plant can now accept the dirty water from mopping the floors with no negative effects on the microorganisms that treat the water at the plant.

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Summary Data	
Priority Area:	Waste Minimization Projects
Project Type:	Process Redesign
Total Project Cost:	NA
Lifecycle Savings:	~$60,000 per year
Implementing Groups:	ESH-3, JCNNM, Kleen-Tech
Benefiting Group:	JCNNM
Useful Life Years:	Indefinite
Return on Investment:	NA
Lifecycle Waste Reduction:	~Fifty 55-gallon drums of hazardous waste per year
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